Appl. No.: 10/632,980

Amdt. Dated: June 2005

Reply to Office Action mailed 03/04/2005

Amendments to the Claims:

Please amend the following claims as indicated. This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (currently amended) A brake pad assembly for a bicycle for urging brake pads against the sidewall of the bicycle wheel rim, the combination comprising:

an elongate support member having a longitudinally extending brake pad holder supported therefrom;

longitudinal extending brake pad means affixed to said support member, said brake pad holder means having a closed end and a truncated open end, said holder including a planar flanged surface defining a recess for sequentially receiving through said truncated open end multiple unitary multiple brake pads in planar end abutting relationship along an axis parallel to the contact surface of said sidewall with selected ones of said brake pads composed of different braking compounds for imparting variously desired braking characteristics a different braking characteristic to said brake pad assembly means;

said brake pad means having a closed first end and, a truncated second end for slidably and sequentially receiving said multiple brake pads in said brake pad means along an axis parallel to the contact surface of said sidewall;

said brake pad holder means and said brake pads configured for interchangeability of said brake pads within said brake pad holder means with each said brake pads having a bicycle wheel rim engaging surface generally coplanar with each other; and

closure means for complementary mating with said truncated open end for securing said brake pads within said brake pad means holder, said closure means having an end substantially identical to said closed end and an open end for mating with said truncated open end to provide a continuous planar flanged recess.

2. (currently amended) The brake pad assembly according to Claim 1 wherein said closure means comprises includes an end cap having configured generally identical to said first end with locking means providing for secure for coacting engagement with said open truncated end.

- 3. (currently amended) The brake pad assembly according to <u>Claim 1</u> <u>Claim 2</u> wherein said brake pad <u>holder means</u> has a longitudinal <u>transverse</u> curvature in conformance with the radius of curvature of said sidewall of the bicycle wheel rim and said brake pads are <u>longitudinally</u> aligned relative to one another and to said brake pad <u>holder means</u>.
- 4. (currently amended) The brake pad assembly according to Claim 3 Claim 2 wherein each of said brake pads is comprised of a top portion for mounting into said brake pad holder and a bottom portion extending from said brake pad holder, said bottom portion having a braking surface for contact with the sidewall of said bicycle rim, said top portion and said bottom portion defined by an indentation along each non-abutting longitudinal side of each said brake pad, said flange having inwardly projecting shoulders for capturing said top portion within said recess. first and second portions defined by an indentation along each side of said brake pad, said first portion captively received in said brake pad means and said second portion extending from said brake pad means and having a braking surface for coplanar contact with the sidewall of said bicycle wheel rim.
- 5. (currently amended) The brake pad assembly according to Claim 4 wherein said top first portion includes a strengthening compound agent for preventing operational pull out of said brake pads from said brake pad holder means and said bottom second portion is comprised of a compound for imparting a particular braking characteristic to said brake pad.
- 6. (currently amended) The brake pad assembly according to Claim 4 wherein the combination of said truncated brake pad holder means and said end cap provide a include longitudinally and circumferentially extending planar flange capture means for interaction with said indentation in said brake pads to slidably receive and capture said top said first portion of each said brake pad securely within said brake pad holder means.
- 7. (currently amended) The brake pad assembly according to <u>Claim 6</u> Claim 5 wherein said <u>flange includes</u> eapture means includes inwardly projecting shoulders and said locking means includes a transverse recess means in at least one of said brake pads and a exacting locking pin, said shoulders, said end cap and said locking <u>pin means</u> configured for <u>coacting</u> mating engagement <u>with said indentations</u> to fixedly lock said <u>individual</u> brake pads within said brake pad <u>holder means</u>.

8. (currently amended) The brake pad assembly according to Claim 1 wherein said <u>closure</u> locking means includes in combination

indentations in said brake pads and mating inwardly projecting shoulders in said brake pad holder means, said brake pad indentations mating with said shoulders to slidably receive said brake pads along said shoulders;

a transverse recess in at least one of said brake pads; and

an end cap complementary mating with said truncated end and having an associated locking pin cooperatively received by said end cap, said truncated end and said recess whereby said brake pads are captured within said brake pad <u>holder means</u>.

9. (currently amended) A brake pad assembly for a bicycle for urging a <u>longitudinally</u> extending brake <u>pad holder</u> shoe against the sidewall rim of the bicycle wheel, the combination comprising:

<u>said</u> longitudinally extending brake pad <u>holder</u> means having a <u>configuration</u> for receiving a plurality of brake pads positioned in sequential abutting arrangement therein along an axis parallel to the contact surface of said sidewall, said brake pads configured for interchangeability within said brake <u>pad holder</u> shoe and selected ones of said brake pads composed of a different braking compound for imparting a different braking characteristic to said brake pad assembly;

said brake pad <u>holder</u> means having one end closed <u>with</u> and the other <u>end</u> a truncated open end for receiving said brake pads;

complementary locking means for mating to said truncated end to thereby secure said pads in <u>longitudinal</u> abutting arrangement within said brake pad <u>holder means</u>;

said brake pads having an overlapping end and an under-lapping end with adjacent pads mated with said overlapping end over said under-lapping end; and

said overlapping end <u>in response to wheel rim movement pressure</u> bearing down on said under-lapping end of an adjacent pad <u>in response to wheel rim movement pressure</u> to thereby <u>restrict prevent</u> pull out of said pads from said brake pad <u>means holder</u>; and

said brake pad holder has a planar flanged surface for receiving said brake pads and a longitudinal transverse curvature in conformance with the radius of curvature of said sidewall rim.

10. (currently amended) The brake pad assembly according to Claim 9, said locking means comprising:

an end cap configured for mating to said truncated end whereby said plurality of brake pads are captured within said brake pad <u>holder</u> means in alignment relative to one another and to said brake shoe;

- a recess in at least one of said brake pads; and
- a locking pin cooperatively received by said end cap, said truncated end and said recess whereby said brake pads are secured within said brake pad holder means.
- 11. (currently amended) The brake pad assembly according to Claim 9 wherein said truncated end includes a reduced dimension portion and said end cap has a mating portion configured for slipping over said reduced dimension to provide a continuous substantially identical planar flanged recess for said brake pads. brake pad means has a longitudinal curvature in conformance with the radius of curvature of the bicycle wheel rim.
- 12. (currently amended) The brake pad assembly according to Claim 9 wherein each of said plurality of brake pads is comprised of a top portion and a bottom portion, the portions defined by an undercut indentation in said brake pads, and each said brake pad holder shoe and said end cap including circumferentially inwardly projecting shoulder means for mating with said indentations, said brake pads slidably received along said shoulder means with said bottom portion extending from said brake pad holder shoe and having a braking surface for planar contact with said bicycle wheel rim.
- 13. (previously presented) The brake pad assembly according to Claim 12 wherein said top portion and the associated undercut indentation <u>includes</u> is formed of a compound to provide resistance to brake pad pull out <u>from said brake pad holder</u> due to wheel rim moving forces and said second pad portion <u>includes</u> is formed of a compound to provide a desired breaking characteristic.
- 14. (previously presented) The brake pad assembly according to Claim 10 wherein the <u>top</u> <u>surface of the</u> outer shell of said brake pad <u>holder means</u> includes exposed corrugated indentations <u>providing for increased</u> for rigidity and strength.

15. (currently amended) A brake shoe assembly for a bicycle <u>for</u> urging a brake <u>pad holder</u> shoe against the sidewall rim of the bicycle wheel, the assembly comprising:

an elongate longitudinally extending brake <u>pad holder</u> shoe having a truncated end for receiving a plurality of unitary brake pads in abutting arrangement sequentially positioned within said brake <u>pad holder</u> shoe along an axis parallel to the contact surface of said sidewall, each having a rim engaging braking surface generally coplanar with the other and said sidewall rim, said brake pads <u>including eomposed of pre-selected braking</u> compounds for imparting a variety of braking characteristics to said brake pad assembly, said brake <u>pad holder</u> shoe and said brake pads configured for slidable interchangeability of said brake pads within said brake <u>pad holder</u> shoe;

each of said brake pads comprised of a top portion and a bottom portion defined by an a longitudinal indentation undercut from said top portion and encompassing each brake pad on at least both sides thereof, said brake pad holder shoe including circumferentially inwardly projecting shoulders configured for mating with said indentation whereby said brake pads are slidably received along said shoulders, said bottom portion extending from said brake pad holder shoe and having a braking surface for contact with said bicycle wheel rim; and

end cap closure means <u>including</u> having circumferentially inwardly projecting shoulders for complementary mating with said truncated end to <u>thereby</u> secure said brake pads within said brake <u>pad holder</u> shoe aligned to each another and to said brake pad holder shoe.

- 16. (currently amended) The brake pad assembly according to Claim 15 wherein said brake pads have an overlapping end and an under-lapping end with adjacent pads mated with said overlapping end over said under-lapping end, and said overlapping end bears down on said under-lapping end of the adjacent pads thereby aiding in prevention of preventing pull out of said pads from said brake pad holder due to wheel rim movement pressure.
- 17. (currently amended) The brake pad assembly according to Claim 15 wherein said end cap closure locking means includes a transverse recess in at least one of said brake pads including a transverse recess, said end cap, said recess and eap for closure of said truncated end and a locking pin, said recess, said truncated end and said end cap configured for cooperatively receiving said locking pin to fixedly position, capture and retain said brake pad portions within said brake pad holder shoe.

- 18. (currently amended) The brake pad assembly according to <u>Claim 15</u> <u>Claim 17</u> wherein said brake <u>pad holder</u> shee has longitudinal <u>transverse</u> curvature in conformance with the radius of the bicycle wheel rim and each of said brake pads <u>when mounted in said brake pad holder</u> has a rim engaging surface generally coplanar with <u>each</u> the other <u>brake pad</u> and with said sidewall of the bicycle wheel wheek rim.
- 19. (currently amended) A method for selectively changing braking characteristics of a brake pad assembly for a bicycle comprising:

providing a longitudinal extending brake <u>pad holder</u> shoe having a <u>transverse</u> curvature in conformance with the radius of curvature of the bicycle wheel <u>rim and rim</u>, said <u>pad holder</u> including a truncated <u>open</u> end for <u>urging said brake pad assembly against the sidewall of the bicycle wheel rim</u>;

providing multiple unitary brake pads of different braking compounds for imparting a different braking characteristic to said brake pad assembly;

slidably inserting selected brake pads in sequential abutting relationship in said brake <u>pad</u> <u>holder</u> shoe through said truncated end along an axis parallel to the contact surface of said sidewall;

slidably interchanging said brake pads as desired to <u>provide</u> effect different braking characteristics to of said brake pad assembly; and

providing end cap closure means complementary with said brake <u>pad holder</u> shoe for mating with said truncated end and securing said brake pads within said brake <u>pad holder</u>; and

wherein said truncated end includes a reduced dimension portion and said end cap has a mating portion configured for slipping over said reduced dimension to provide a continuous substantially identical planar flanged recess for said brake pads.

20. (currently amended) The method of claim 19 wherein at least one of said brake pads has a top portion <u>including formed of</u> a compound to provide resistance to brake pad pull out <u>of said brake pad holder</u> due to wheel rim moving forces and a bottom portion <u>including formed of</u> a compound to provide a desired <u>braking breaking</u> characteristic.